

# VALIADIS S.A.

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

NAMEPLATE DATA			
K280M-6	IEC TYPE	75 kW	990 r/min
FRAME REDUCED	3 PHASE	400 VOLTS	50 Hz
6 POLE	133,0 AMPS	IP55 IP	
VALIADIS MANUFACTURER	S1 DUTY	F INS.CLASS	Δ CONNECTION

MAJOR CONTENTS	UNIT	TEST VALUE
STATOR RESISTANCE OF PHASE	OHM	0,11214
NO LOAD CURRENT	AMP	36,03
NO LOAD INPUT	W	2208,1
CORE LOSS(Pfe)	W	1543,1
WINDAGE FRICTION LOSS(Pfw)	W	528,9
STATOR WINDING LOSS(Pcu1)	W	2046,1
ROTOR WINDING LOSS(Pcu2)	W	940,1
STRAY LOAD LOSS(Ps)	W	626
FULL LOAD CURRENT	AMP	133,81
LOCKED ROTOR CURRENT	AMP	845,25
LOCKED ROTOR CURRENT/FULL LOAD CURRENT	P.U.	6,36
FULL LOAD TORQUE	N.m	725,01
LOCKED ROTOR TORQUE	N.m	1581,36
LOCKED ROTOR TORQUE/FULL LOAD TORQUE	P.U.	2,19
PULL OUT TORQUE	N.m	1851,83
PULL OUT TORQUE/FULL LOAD TORQUE	P.U.	2,56
INPUT @ FULL LOAD	kW	80,65
EFFICIENCY @ FULL LOAD	%	93,00
POWER FACTOR @ FULL LOAD		0,87
FULL LOAD SLIP	%	1,219
FULL LOAD SPEED	r/min	987,8
STATOR WINDING TEMPERATURE RISE	K	74
D.E. BEARINGS TEMPERATURE BY PT100	Deg. C	55,2
AMBIENT TEMPERATURE OF TESTING	Deg. C	6,1
HIGH VOLTAGE TEST	V	1800
INSULATION RESISTANCE	MΩ	500
NOISE	dB(A)	83
VIBRATION	mm/s	0,6

The data above is calculated as per IEC 34-2, all data at nominal Volts.

<b>VALIADIS S.A.</b>  <b>K280M-6</b> <b>75 kW</b> <b>400 VOLTS 50 Hz</b>	<b>SERIAL NO.</b>		
	<b>DATE</b>		<b>REV</b>
	<b>DRAWN</b>		<b>DOCUMENT NO.</b>
	<b>APPRVD</b>		
	<b>CHECKED</b>		

# ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

**VALIADIS S.A.**

<b>Type</b>	K280M-6	<b>Poles</b>	6			<b>Power</b>	75,0 kW
<b>Voltage</b>	400 V	<b>Current</b>	133	A		<b>Frequency</b>	50 Hz
<b>Speed</b>	990 r/min	<b>Duty</b>	S1			<b>Connection</b>	Δ
<b>Ins.class</b>	F	<b>Weight</b>	0	kg			IP55

## NO LOAD TEST

VOL	mul.	Hz	I01	I02	I03	mul.	W1	W2	mul.	°C
471,5	1	50	2,789	2,710	2,763	20	-653,4	820,5	20	73,2
437,6	1	50	2,215	2,147	2,191	20	-474,9	609,4	20	73,1
400,8	1	50	1,837	1,776	1,810	20	-356,2	467,0	20	73,0
348,1	1	50	1,489	1,437	1,463	20	-245,4	334,1	20	72,9
307,3	1	50	2,573	2,480	2,554	10	-363,5	510,9	10	72,8
246,6	1	50	2,003	1,937	1,998	10	-212,5	330,4	10	72,7
199,8	1	50	1,613	1,565	1,611	10	-126,7	225,9	10	72,6
169,1	1	50	1,372	1,324	1,368	10	-84,1	166,9	10	72,5
136,5	1	50	2,266	2,217	2,335	5	-89,8	235,5	5	72,4
83,8	1	50	1,560	1,532	1,623	5	0,0	124,5	5	72,2

<b>VALIADIS S.A.</b>	<b>Manufacturing Date</b>	<b>Serial No</b>
	<b>Test Date</b>	<b>Report Number</b>

# ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

**VALIADIS S.A.**

						Frame Reduced			
<b>Type</b>	K280M-6		<b>Poles</b>	6		<b>Power</b>	75,0		<b>kW</b>
<b>Voltage</b>	400	<b>V</b>	<b>Current</b>	133	<b>A</b>	<b>Frequency</b>	50,0		<b>Hz</b>
<b>Speed</b>	990	<b>r/min</b>	<b>Duty</b>	S1		<b>Connection</b>	Δ		
<b>Ins.class</b>	F		<b>Weight</b>	0	<b>kg</b>	IP55			

## LOCKED ROTOR TEST

VOL	mul.	lk1	lk2	lk3	mul.	W1	W2	mul.	Torqu N.m
293,7	1,0	2,814	2,806	2,838	200,0	-130,2	675,6	200	703,58
265,5	1,0	2,477	2,480	2,499	200,0	-108,9	533,4	200	555,21
235,6	1,0	2,147	2,146	2,164	200,0	-90,0	407,6	200	414,31
203,2	1,0	1,780	1,779	1,789	200,0	-68,4	287,5	200	289,27
178,5	1,0	3,039	3,037	3,060	100,0	-109,3	427,8	100	210,89
148,8	1,0	2,430	2,441	2,455	100,0	-74,6	283,1	100	135,30
113,6	1,0	1,790	1,790	1,802	100,0	-44,8	157,3	100	73,72

<b>VALIADIS S.A.</b>	Manufacturing Date	Serial No
	Test Date	Report Number

## ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

**VALIADIS S.A.**

<b>Type</b>	K280M-6	<b>Poles</b>	6	<b>Power</b>	75 kW	Frame Reduced
<b>Voltage</b>	400 V	<b>Current</b>	133 A	<b>Frequency</b>	50 Hz	
<b>Speed</b>	990 r/min	<b>Duty</b>	S1	<b>Connection</b>	Δ	
<b>Ins.class</b>	F	<b>Weight</b>	0 kg		IP55	

### TEMPERATURE RISE TEST

TIME (h:min)	V	I1	I2	I3	mul.	W1	W2	mul.	T1 °C	T2 °C	T3 °C	T4 °C	T5 °C	T6 °C	T7 °C	T8 °C	T9 °C	T10 °C	T11 °C	T12 °C	T13 °C	
11:00	400,2	2,689	2,683	2,689	50	529,4	1055,6	50	49,5	—	76,2	76,2	—	—	—	—	—	—	—	—	—	4,9
11:30	400,2	2,689	2,683	2,691	50	529,8	1055,4	50	51,9	—	79,4	79,4	—	—	—	—	—	—	—	—	—	5,1
12:00	400,3	2,716	2,710	2,718	50	539,2	1066,8	50	53,1	—	81,4	81,4	—	—	—	—	—	—	—	—	—	5,3
12:30	400,3	2,718	2,712	2,718	50	539,6	1066,2	50	53,3	—	83,3	83,2	—	—	—	—	—	—	—	—	—	5,6
13:00	400,3	2,685	2,679	2,685	50	532,6	1053,8	50	53,8	—	84,1	84,1	—	—	—	—	—	—	—	—	—	6,1
13:30	400,4	2,664	2,660	2,666	50	528,8	1045,8	50	54,2	—	84,9	84,8	—	—	—	—	—	—	—	—	—	6,2
14:00	400,3	2,691	2,687	2,693	50	534,8	1056,0	50	54,5	—	85,4	85,3	—	—	—	—	—	—	—	—	—	5,9
14:30	400,3	2,708	2,704	2,710	50	540,6	1063,8	50	55,2	—	85,4	85,3	—	—	—	—	—	—	—	—	—	6,1

Last 3 points average	134,343	A	79496,67	W	55,2	—	85,4	85,3	—	—	—	—	—	—	—	—	—	—	—	—	6,1
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T1 T2 : DE BEARING TEMPERATURE                      T9 : AIR INLET TEMPERATURE                      T11 : CORE TEMPERATRE                      T12: FRAME TEMPERATRE  
 T3~8 : DE WINDING TEMPERATURE                      T10 : AIR OUTLET TEMPERATURE                      T13 : AMBIENT TEMPERATURE

#### WINDING RESISTANCE (HOT) AT END OF TEMPERATURE RISE TEST

TIME (S)	58	78	107	148	170	189	213	238
RESISTANC	0,07160	0,07149	0,07136	0,07117	0,07108	0,07098	0,07092	0,0709

#### WINDING RESISTANCE(COLD)

	U1-V1	U1-W1	V1-W1	AVERAGE	MIN	AMBIENT TEM.
	0,05375	0,05381	0,05386	0,05381	0,05375	2,5 °C

VALIADIS S.A.	Manu. Date	Serial No
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**ELECTRIC MOTOR TEST REPORT -  
THREE PHASE INDUCTION MOTOR**

**VALIADIS S.A.**

<b>Type</b>	K280M-6	<b>Poles</b>	6	<b>Power</b>	75,0	<b>kW</b>	Frame Reduced
<b>Voltage</b>	400 V	<b>Current</b>	133 A	<b>Frequency</b>	50,0	<b>Hz</b>	
<b>Speed</b>	990 r/min	<b>Duty</b>	S1	<b>Connection</b>	Δ		
<b>Ins.class</b>	F	<b>Weight</b>	0 kg		IP55		

**LOAD TEST**

V	Hz	I1	I2	I3	mul.	W1	W2	mul.	r/min	Temperature °C	Torqu N.m
400,0	50,01	3,764	3,764	3,777	50	767,0	1511,0	50	983,5	83,1	1021,9
400,2	50,01	3,293	3,290	3,299	50	677,8	1320,8	50	985,8	83,8	900,0
400,0	50,01	2,618	2,615	2,622	50	527,4	1049,6	50	988,9	84,3	712,4
400,2	50,01	2,042	2,039	2,040	50	383,1	820,2	50	991,4	84,3	543,3
400,1	50,00	1,491	1,481	1,482	50	216,2	587,6	50	993,9	83,6	358,7
400,11	50,00	2,658	2,600	2,616	20	113,1	955,1	20	996,4	81,6	184,1

Final Resistance of load : 0,00000 Ω ambient temperature 0,0 °C

LOAD %	P2 W	I A	P1 W	Pcu1s W	Ss %	Pcu2s W	Ps W	Pfe W	EFF %	P.F
150,0	112500	203,5	122785,5	4732,6	1,949	2272,5	1428,9	1460,7	91,56	0,871
125,0	93750	167,3	101453,5	3198,2	1,549	1499,1	984,3	1477,2	92,41	0,875
100,0	75000	133,8	80652,9	2046,1	1,219	940,1	625,7	1489,7	93,00	0,870
75,0	56250	102,3	60366,0	1195,9	0,933	538,1	349,9	1504,9	93,18	0,852
50,0	37500	74,7	40585,3	637,4	0,653	251,0	154,7	1517,5	92,44	0,784
25,0	18750	52,3	21234,4	313,1	0,382	74,1	38,5	1530,64	88,32	0,586

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# ELECTRIC MOTOR TEST REPORT - THREE PHASE INDUCTION MOTOR

**VALIADIS S.A.**

Type	K280M-6	Poles	6	output Power	75,0 kW	Frame reduced
Voltage	400 V	Current	133 A	Frequency	50,0 Hz	
Speed	990 r/min	Duty	S1	Connection	Δ	
Ins.class	F	Weight	0 kg		IP55	

## LOAD CURVE

